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(71) Applicant: NTEX datacommunications bv  
NL-3062 CE Rotterdam (NL)

(72) Inventor: Nederlof, A.G.  
NL-3062 CE Rotterdam (NL)

(54) Access method retrieving Internet information through Teletext/Videotex and the reverse

(57) NTEX datacommunications developed a general purpose access method to and from the Internet World Wide Web protocol and the existing Videotex protocols (Prestel, Minitel and Cept). Also a similar access method to and from the new KIT protocol is possible.

The method of transforming the Internet World Wide Web (WWW) protocol into videotext/teletext information comprises the steps of suppression of graphic information and transforming the hypertext navigational instructions into menu driven control.

Figure 1 shows a general situation sketch. The Internet network(2) with its over 30 million host systems (1) and over 300 million end-users terminals(3) is drawn. Most terminals(3) consist of terminal emulation programs on a diversity of computers systems, typically accessed by experienced computer users

The bottom part of the figure shows a cable television system(9) in combination with a teletext inserter(6) and a hybridtext computer(5). This system allows users to access with their standard telephone(10,8,7) and television(9) set the videotex information stored in the hybridtext(5) computer and all systems it is connected with.

These two existing systems are interconnected by the NTEX CommServer(4). This system can communicate with Internet as well with videotex. The NTEX TEL-EWEB product ( this claim) bridges the two worlds of information.

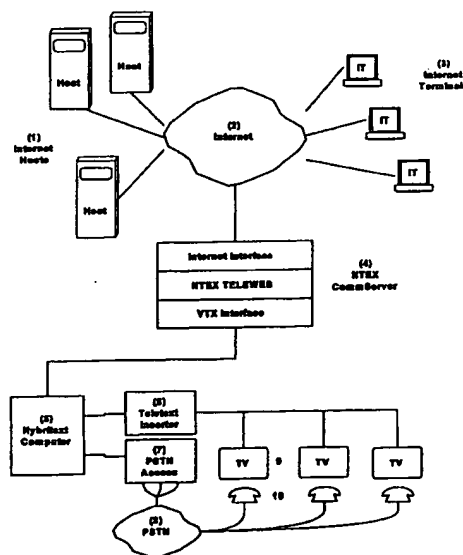


Figure 1

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## Description

### Background of the invention

With the fast growing interest in the new 'electronic superhighway' the Internet network has expanded itself with astonishing speed. Although this network existed for many years, recent developments like World Wide Web in combination with easy to use windows based access applications made it possible that a far larger audience was addressed than before.

As a result of this the offer of service is large at this moment and still growing at a fast rate.

This offer of information and services is attractive for a broad public. The problem there is that currently the information is only accessible through a computer with modem which is not owned by the majority of the public today.

On the contrary is the availability of a standard television set with the ability for Teletext and pushbutton telephone very large.

NTEX datacommunications bv has developed an access method to link the Internet World Wide Web protocol with the existing Teletext television sets. This means that you can access all text information available within Internet through your standard television without the need to buy any additional device.

Another interesting fact is that in Europe a huge amount of information currently is stored in Videotex format. Also a lot of interactive services are offered in this format. In order to reduce costs of conversion of these information systems to the Internet HTML standard NTEX datacommunications has developed an access method to link the existing Videotex information services with the Internet World Wide Web protocol.

Figure 1 shows a general situation sketch. The Internet network (2) with its over 30 million host systems (1) and over 300 million end-users terminals (3) is drawn. Most terminals (3) consist of terminal emulation programs on a diversity of computer systems, typically accessed by experienced computer users.

The bottom part of the figure shows a cable television system (9) in combination with a teletext inserter (6) and a hybridtext computer (5). This system allows users to access with their standard telephone (10, 8, 7) and television (9) set the videotex information stored in the hybridtext (5) computer and all systems it is connected with.

Also a similar access method to and from the new KIT protocol is possible.

### Disclosure of invention

These two existing systems, Internet and Videotex/Teletext, are interconnected by the NTEX ComServer (4). This system can communicate with Internet as well with videotex. The NTEX TELEWEB product (this claim) bridges the two worlds of information.

The method of transforming the Internet World Wide Web (WWW) protocol into videotex/teletext information comprises the steps of suppression of graphic information and transforming the hypertext navigational instructions into menu driven control.

The essence of the first part of the invention is the combination of steps, making it possible to access Internet data through teletext/videotex devices. Although each step in itself may seem to be minor and some of them even well known, it was not believed to be possible to present the Internet information in an appropriate manner on a television set.

The second part of the invention comprises the method of translating videotex and teletext information to the Internet HTML protocol. Again the combination of steps involving the translation process makes this invention unique.

### Advantageous effects

The major goal of the first part of this invention is to allow every individual to access the information stored in the international community of Internet through his existing television set and telephone without the need to buy any additional devices. The truly simple and user friendly way this access operates invites a user (without any particular knowledge in the field of datacommunication) to browse the globe for information.

The effect of the second part, connecting Internet to Videotex, results in the ability to connect the huge amount of information stored in videotex and teletext hosts to the Internet society. This will be of major importance for the growth of the Internet Network.

### Claims

1. NTEX datacommunications bv claims patent for a method (8) to convert HTML (4) (HyperText Markup Language) information into Videotex (9) information.

The method (8) of transforming the HTML (4) format into Videotex (9) comprises the steps of suppression of graphic information and transforming data for hypertext links into menu controlled links.

2. NTEX datacommunications bv claims patent for a device consisting of a CPU and means to transfer information from Internet to Teletext and Videotex Services.

The Internet protocols subject for conversion are HTML (4) (claim 1), Plain text (5), audio information (6) and Video graphics (7). The Videotex/Teletext protocols to convert to are Prestel (9) with either the Prestel 2.2 + gateway (13) or the X.29 access (14), Minitel (10) (or teletext) and Cept (or BTX, BildschirmText) (11).

3. NTEX datacommunications bv claims patent for a device consisting of a CPU and means to transfer

information from Teletext and Videotex Services to Internet .

The Videotex/Teletext protocols subject for conversion are Prestel(9) with either the Prestel 2.2 + gateway(13) or the X.29 access(14), Minitel (10) (or 5 teletel) and Cept (11) (or BTX,BildSchirmText).

The Internet protocols to convert to are HTML (4) and Plain text (5).

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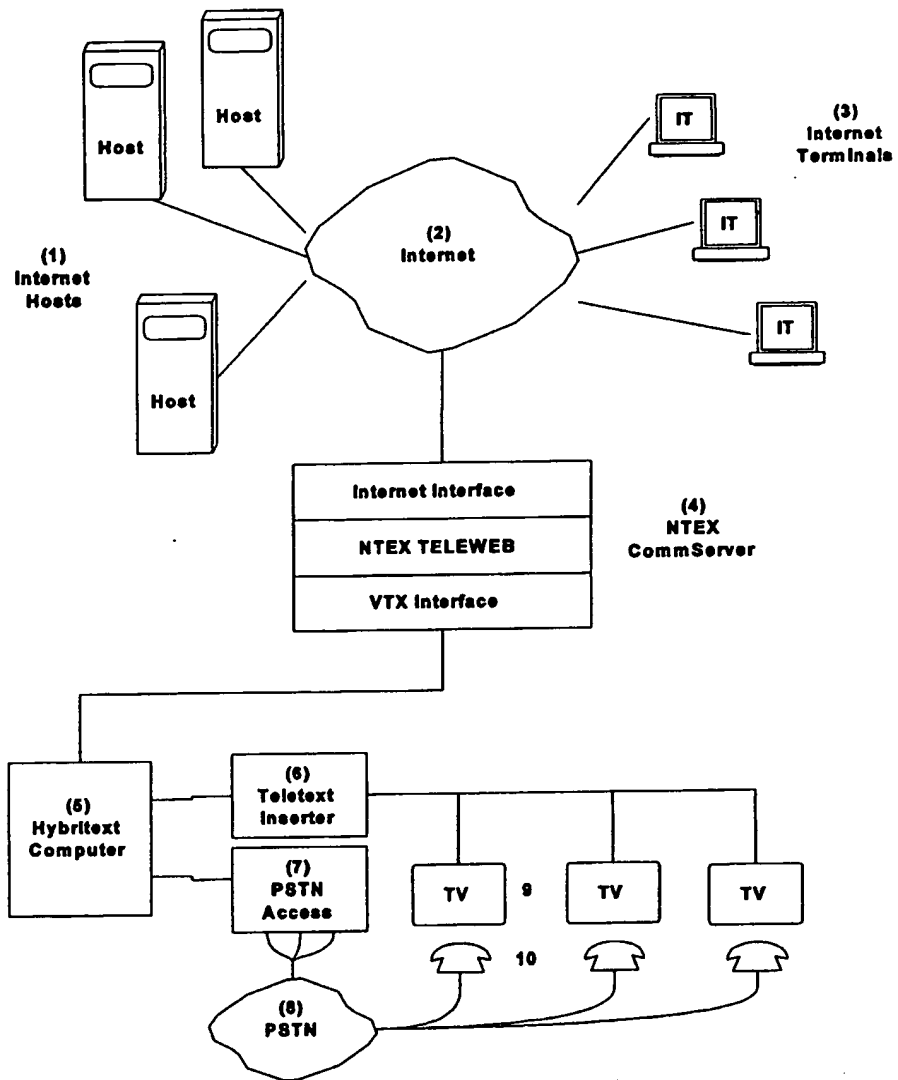


Figure 1

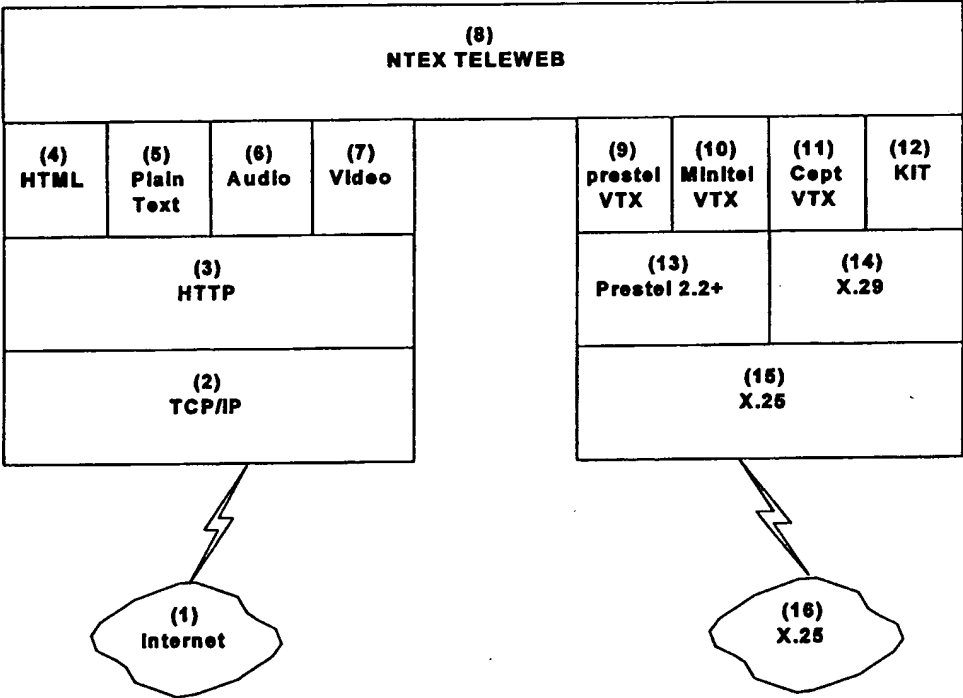


Figure 2



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# EUROPEAN SEARCH REPORT

Application Number  
EP 95 20 0142

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	LOCAL COMPUTER NETWORKS. PROCEEDINGS OF THE IFIP TC 6 INTERNATIONAL IN-DEPTH SYMPOSIUM, FLORENCE, ITALY 19-21 APRIL 1982 pages 289 - 308 RAVASIO ET AL. 'NETWORK INTERCONNECTION' * figure 18 *	1-3	H04N7/00
A	15TH INTERNATIONAL TV SYMPOSIUM MONTREUX SWITZERLAND 11-17 JUNE 1987, CATV SESSIONS pages 334 - 340 QUINTON 'AN OVERVIEW OF PROGRESS TOWARDS INTERACTIVE SERVICES IN THE UK' * page 337, last paragraph; figure 4 *	1-3	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30 May 1995	Examiner Bosch, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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